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The lectotype of *Goliathus drurii* Westwood, 1837 (Coleoptera: Scarabaeidae: Cetoniinae) in the Macleay Museum, University of Sydney, Australia

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The lectotype of *Goliathus drurii* Westwood (Coleoptera: Scarabaeidae: Cetoniinae) has been located to the Macleay Museum, University of Sydney, Australia. Collected in 1775, this specimen represents the second species of *Goliathus* to be illustrated in European literature, however eluding a proper species description until 1837. This important specimen, overlooked by previous curators, represents another portion of the Dru Drury collections purchased by Alexander McLeay now held in the Macleay Museum.

The original description by Westwood (1837) in *Illustrations of Exotic Entomology*, 1837, is as follows:

Goliathus drurii; Albidus, thorace lineis sex at disco elytrorum irregulatiis nigris, podibus aeneis, espite porrecto bifido. (Long. Corp. 4 unc. [4 inches])

Head cream-coloured at top, and black underneath, being full three-fourths of an inch in length, from the neck to the extremity of the two horns which issue from the fore part of it, the sides of which are furnished with two other thick horns which are shorter than the former. Eyes black, and situated so as to discern above and beneath. Antennae black. Thorax an inch and a half long, cream-coloured, having a thin, sharp, black edge all round; on the top are six longitudinal black streaks differently shaped, separated by cream-coloured lines, the middle ones being narrowest, on each side of which near the lateral edge is a small single black spot; the under part of the thorax is cream-coloured. Scutellum of a longish triangular shape, and cream-coloured. Elytra cream-coloured, with a broad black streak like velvet, about a third of their breadth, running near the lateral edges from the shoulders to the tips. On each side the scutellum is a small black oblong spot, at about one-third of an inch from it. Legs dark green, finely polished. The hairs on the middle and hind thighs and tibiae dark orange. Abdomen dark green. Abdominal scales [posterior coxae] the same; on which, close to the joints of the hinder thighs, are two small cream-coloured spots. Sternum long, and of a dark green colour.

Collected near Sierra Leone by Henry Smeathman, the beetle was obtained by Dru Drury in 1775 as proceeds from his subscription sponsoring Smeathman's natural history collecting in that area (Hancock & Douglas 2009). It is listed in an unpublished manuscript titled "A catalogue of the exotic insects in the collection of Dru Drury (1784) preserved in the Hope Entomology Library, Oxford University Museum as 2. *Goliatus*. Sierra Leon [sic] 1775 Mr Smeathman. Vid. Illust. Vol 3 pl. 40. Drury described this specimen with an accompanying figure by Moses Harris in 1782 (Fig. 1); however, he did not apply a new name to it (Drury 1782). Instead, Drury erroneously identified it as a variety of *Goliathus giganteus*, now a synonym for *Goliathus goliatus* (Linnaeus). After Drury's death, his collections were sold at auction in 1805 (Donovan 1805), where the beetle sold for £12 1s 6d to Alexander McLeay (Westwood 1837). Alexander McLeay moved to Sydney for a government post in 1826 taking the majority of his collections with him, but leaving the scarab beetles in the care of his eldest son, William Sharp MacLeay. A specimen of *Goliathus drurii* was recorded as being in the MacLeay's cabinets in London by Westwood in 1837 (Westwood 1837), William Sharp MacLeay in 1838 (MacLeay 1838), and Thaddeus William Harris in 1839 (Harris 1839). W.S. MacLeay moved to Sydney in March 1839, bringing with him Alexander's remaining insects supplemented by his own collections. These were bequeathed to William Sharp's cousin, William John Macleay, who in turn donated the family collections to the University of Sydney in 1873 to form the Macleay Museum (Fletcher 1921).

A previous investigation into the history of the *Goliathus goliatus* (Linnaeus) holotype (Hancock & Douglas 2009) also established a history for *Goliathus drurii*, but without confirming its location. Westwood mentions two specimens which correspond to the *Goliathus drurii* description, one belonging to Mr Havill of Oxford Street and the other belonging to Mr. MacLeay, being the specimen figured. A single male specimen identified as *Goliathus regius* Klug, 1835 (Fig. 2A, B) but matching the description and illustration of *Goliathus drurii* (Westwood 1837) has been located in the Macleay Museum. **I hereby designate the Macleay specimen as the lectotype for *Goliathus drurii* Westwood, 1837, rendering the unlocated Havill specimen a paralectotype.**



FIGURE 1. Moses Harris' illustration of *Goliathus drurii* from *Illustrations of Exotic Entomology*, Westwood (1837), volume 3, pp. 54–55, plate XL. Image from the Biodiversity Heritage Library, digitized by Smithsonian Libraries: www.biodiversitylibrary.org.



FIGURE 2A. *Goliathus regius*, dorsal (A) and ventral (B) views, photographed in 2016, Macleay Museum. Pin holes can be seen in the centre of the scutellum and on the right elytra, erupting in four places on the ventral surface. Damage to the mouthparts is also clear in the dorsal view.

The specimen measures 100 mm in length from the tip of the clypeus to the posterior of the elytra, and 47 mm along the widest point of the elytra. The specimen is missing both the original pin and all voucher information. There are two pin holes through the dorsal surface, one through the centre of the scutellum and one through the right elytra (Fig. 2A). From these two dorsal pin holes, there are four ventral pin holes exiting from the specimen (Fig. 2B). The mouthparts have been heavily damaged, and all palps are missing. The antenna, clypeus, head, thorax, abdomen, and elytra are all intact; however the legs have sustained damage over the years. The prothoracic legs are both intact; the left and right mesothoracic legs are missing below the second tarsomere; the left metathoracic leg is missing below the tibia, and the right metathoracic leg is missing below the second tarsomere. The elytra bear a number of small abrasions, but are otherwise intact. This specimen closely matches that illustrated by Moses Harris in 1782. The colour patterns and posturing of the prothoracic legs match very closely, although the posturing of the antennae is more relaxed in the specimen than the illustration.



FIGURE 2B. *Goliathus regius*, dorsal (A) and ventral (B) views, photographed in 2016, Macleay Museum. Pin holes can be seen in the centre of the scutellum and on the right elytra, erupting in four places on the ventral surface. Damage to the mouthparts is also clear in the dorsal view.

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of eleven thousand different specimens, collected from all the countries ... by Mr. Dru Drury ... lately deceased, who was upwards of thirty years in forming the above collection : at the same time will be sold the elegant mahogany cabinets, with a few books on Entomology and the copy-right, copper-plates in number one hundred and fifty of the Illustrations of natural history ... with a few coloured sets, and a large quantity of letter-press, and odd plates coloured and plain, which will be sold by auction by Messrs. King & Lochee ... on Thursday, May 23, 1805. King & Lochee, London, 16 pp.

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